

ABSTRACT OF THE DISCLOSURE

5 Read word lines and write word lines are provided corresponding to the respective MTJ (Magnetic Tunnel Junction) memory cell rows, and bit lines and reference voltage lines are provided corresponding to the respective MTJ memory cell columns. Adjacent MTJ memory cells share at least one of these signal lines. As a result, the pitches of signal lines provided in the entire memory array can be widened. Thus, the MTJ memory cells can be efficiently arranged, achieving improved integration of the memory array.